

From: Chris Hendrickson
To: Microsoft ATR
Date: 1/23/02 11:43am
Subject: Microsoft Settlement

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I am writing to discuss my displeasure in the current proposed final settlement is a case of "too little too late".

It is my opinion that the current proposed settlement does little to truly address the two major problems with Microsoft's current monopoly, or rather how they are capable to maintain that monopoly, despite the public perception of low quality.

Those two major issues are the Windows API (Application Programming Interfaces), and the Microsoft Office Document formats. Several years ago, a company by the name of IBM created the "IBM PC", this, just like all other computers of the era was a proprietary architecture unique to IBM. It is because of Compaq's reverse engineering of the IBM BIOS and the subsequent opening of the architecture that computers are the way they are today. I can get a Motherboard from one of many companies (Gigabyte, Asus, Epox, etc.), CPU from one of another (Intel or AMD), Disk Drives from yet another (Seagate, Maxtor, Western Digital, etc.) Memory from others, Video Sound and other expansion cards from a plethora of other providers, put it all together and get a working machine. In fact, from the hardware standpoint, the only thing that is interdependent is the CPU (since AMD and Intel use different Processor interfaces). It does not matter whether I use a Gigabyte or Asus Motherboard, as long as the board supports the processor, and supports the standard interfaces such as AGP (Video), DIMM (RAM), IDE (Hard Disk and CD-ROM Drives), PCI (Misc. expansion cards). These are open standards that are fully documented and that any company can create a product that can fully interface with them. The specifications for these interfaces are often not controlled by one company, but often, by groups of companies, and the specifications are open and available for access and comment. It is this openness and standards that make the PC hardware what it is today.

Software is a different story. The "standard" is the Microsoft Windows Operating System, the Application interfaces are not open for all to see, many are closed and only available internally in Microsoft. The majority of users use Windows because they have no choice, because Windows is the only system that runs the applications they want, yet since Windows is the most commonly used Operating System, most companies will develop exclusively for it. This is the "Application barrier to entry" that was mentioned in Judge Jackson's finding of fact. The problem is the same for the Microsoft Office suite, businesses will use distribute documents in the MS Office format because it's what almost everyone uses, and almost everyone uses that format because almost everyone uses MS Office.

The Resolution to the problem mentioned above is simple. Opening the IBM PC architecture went a long way in encouraging competition in hardware (not only in manufacturers of individual components but also on the level of System integration such as Gateway, Dell, Compaq, etc.). The resulting competition in turn also reduced costs and prices (costs because the providers of the fabrication and raw materials were better able to compete, and price because of the competition between the manufacturers). Likewise, the opening of the Microsoft Windows API's (all of them, including but not limited to Microsoft's JAVA, DirectX, "Win32" and "Win16" WinG, and any other such Interfaces that are available to applications, either third party or Microsoft's that are available on any standard Windows computer), and of the Microsoft Office formats, would encourage and stimulate competition in the Operating System and Office Suite arenas. First, there is currently a project called "WINE" (<http://www.winehq.org/> - an application wrapper to run Windows applications on UNIX-like Operating Systems, most notably Linux) that is synonymous with Compaq's effort to reverse engineer the IBM BIOS, however, this project is far from complete, and still continues to have major problems in developing a system that will run anything more complicated than solitaire without problems. The opening of the Windows API will go a long way in not only improving the compatibility of projects such as wine, but it would allow them to run Windows

applications almost identically as Windows would natively. This would allow Operating Systems such as Linux and BSD (and the ill-fated BeOS and OS/2) to incorporate those API's into the System itself. This would have the effect of almost overnight, allowing many systems to run Windows applications as well as Windows itself does (if not better). This would allow for much greater competition in the Operating System market, such as users today do not have to worry about getting the video card that works with Epox, or Gigabyte motherboards, but rather only have to be sure that it uses the standard AGP interface. In the same way, a user would not have to worry about whether an application would work on Windows, or Linux, or perhaps even MacOS, but would only need to be sure that it uses the standard Universal Application Interface.

The same reasoning applies to the Microsoft Office, if the Office formats were made open, then any application could integrate those formats into it's own file handling routines and be able to read and write Microsoft Word or Excel documents as well as Word or Excel itself.

When that happens, just as with Windows, users will no longer have to get Microsoft Office to communicate with the rest of the business community, but rather only need to find an Office Suite that meets their needs and is capable of dealing with the standard Universal Document Formats.

A one time opening however would not be enough to ensure further competition, Microsoft could easily circumvent the API's in the next version of Office and Windows, by making older API's continue to work, but with the stipulation that if a developer wants to use the new features of the latest versions of Windows and/or Office, then that developer would have to access the new closed proprietary API's (this is commonly referred to as Microsoft's embrace and extend strategy, by embracing a standard, then adding Microsoft Proprietary extensions to it so that Microsoft's implementation will work partially with other implementations, but only fully be able to work with other Microsoft implementations.) Therefore, it would be my suggestion that a standards committee be appointed to oversee the opening of the Windows API, and Office Document format, and then continue to oversee the further development of the new standards. Such a body, while could contain Microsoft representation, should also include other companies with an interest in those protocols. Companies such as Apple Computer, RedHat, IBM, Sun Microsystems, and other companies that would have an interest in a Universal Application Interface would have equal vote in the committee, similarly, companies such as Sun Microsystems (StarOffice), Corel, IBM (Lotus), and other companies that would have an interest in a common Document format, would have positions on the Universal Document Format committee. Additionally, it is my opinion that if such a remedy were to be put in place, that Microsoft should then be required, for a period of perhaps five to fifteen or more years, to adhere to these standards and not be allowed to incorporate proprietary extensions. This period would allow competing Operating Systems to adhere to the standards, and allow for the market to adjust itself accordingly.

It is my opinion, that any remedy short of the forced opening of the Application and Document interfaces and formats will not be adequate to fully address the lack of competition in the Operating system and Office suite markets. While this same remedy might also be applied to other areas of Microsoft's monopoly as well, such as their Internet Explorer browser, the primary area of concern for is currently the Windows Application Interface, and the Office Document Formats.

Chris Hendrickson
Computer Professional

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Chris Hendrickson
QSS Group, Inc - MEDS
NASA/Goddard Space Flight Center

MTC-00016542_0003

Voice: (301) 867-0081 Fax: (301) 867-0089
GSFC Email: Christopher.E.Hendrickson.1@gsfc.nasa.gov
QSS Email: chendric@qssmeds.com

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